



#### **Editorials**

#### Smaller Is Ok

This issue of the Minnegazette incoporates several changes aimed at lowering it production cost. The savings will release more of the Museum's General Fund for investment in other projects. We support these changes mandated by the Board of Directors, and we hope that our readers will too. Historic preservation, after all, is what MTM is about.

The annual production cost of this magazine will be cut to \$9 per membership, down from about \$13 in 1986, To achieve this, the inside pages will use less expensive paper stock, and fewer extra copies will be printed. Issues will contain maximums of 20 pages and 30 Photographs.

In our hour of need, member Ray Kilby has arranged through his employer, Minnesota Suburban Newspapers, to set the type for the Minnegazette at only the cost of materials. This will release a substantial cost saving. Ray also has joined our magazine staff as Art Director, and will work on page layouts and graphics. The budget cuts would have been much more painful without Ray's help. He and Minnesota Suburban Newspapers deserve a big round of thanks.

The bad news is that our magazine will have somewhat less space. The good news is that the quality will be about the same or better, and that about \$4,000 more will be available from the General Fund this year to

support work on the Stillwater & St. Paul Railroad and the Jackson Street Roundhouse. Nothing wrong with that, so far as we can see.

#### **About The Cover**

The Overland Route to the Pacific, an American legend, is not the sole domain of the mighty Union Pacific Railroad. But for 25 years since 1867, Chicago & North Western Railway has linked UP's Omaha terminal to Chicago. The North Western bought nine streamlined E-4 Class engines from Schenectady in 1938 to expedite west coast passenger trains across Illinois and Iowa. Expedite is what they did on 84 inch driving wheels turned by steam under 300 pounds pressure, and equipped with remote speed control devices for safety. One of these magnificent Hudsons boosts a limited out of Boone, IA., on May 6. 1951. Robert V. Mehlenbeck Photo.

#### Who's On First?

An official of the Urban Mass Transportation Administration once remarked that the Twin Cities knows more about rail rapid transit but has less of it than any other urban area. Sixteen cities around the US and Canada already have or soon will open light rail transit services. Just about every Minnesota Legislature since 1973 has discussed rail transit, and enough studies of it have been written to burst a bookcase. The Minnegazette of November-/December, 1984, reported on the issues and actors at the time.

The studies have looked at every conceivable question about deplo-

ment and operation of LRT, other forms of rapid transit and their applicability in the Twin Cities. By the early 1980's, other cities were gaining real experience with new rail systems, an additional reference for local decision-making. Much of the mystery evaporated. For example, it was feared that customers would refuse to transfer from a bus or auto to an LRT, and accordingly that rail ridership would be low. In fact, about nine out of ten LRT riders do break their trips with transfer, and ridership exceeds expectations in all instances.

Two studies sponsored in 1983-84 by Hennepin County, the Metropolitan Council and 16 other public and private organizations developed plans for LRT routes in the University, Hiawatha and Southwest travel corridors. Construction would take 15 years and require no federal or state subsidy. Costs could be borne by combination of fares, existing motor vehicle taxes, a modest property levy and value capture around station sites. The system would remove about 15,000 automobiles and over 200 buses by year 2000 from crowed roads at rush hour.

The studies avoided a knotty issue that derailed the effort in 1985 and now threatens to do so again. The question is which LRT route should be built first, and in which order the others should follow. If LRT has an Achilles' Heel, this probably is it. Most agree that it would work well in any of several travel corridors, but fear that the second, third and fourth lines might be delayed, or never built at all. Naturally then, those Continued on next page

# **Calendar Of Events**

Please note the dates and locations of Museum membership meetings for 1987 listed below. The **Minnegazette** may not always arrive in time to notify members in advance of particular meetings. Please also watch this colume throughout the year for excursions and other events as they are scheduled.

**May 26:** Membership meeting, 7:30 p.m., **Jackson Street Roundhouse**, 193 E Pennsylvania Avenue, St Paul. **Bring a lawn chair.** 

**July 28:** Membership meeting, 7:30 p.m., **Jackson Street Roundhouse**, 193 E Pennsylvania Avenue, St Paul. **Bring a lawn chair.** 

**Sept 22:** Membership meeting, 7:30 p.m., **Air National Guard Auditorium,** Fort Snelling.

November 24: Annual Membership Meeting & Election of 1988 Museum Officers, 7:30 p.m., Northwestern National Life Building, Washington & Marquette Avenues, Downtown Minneapolis.



Published bi-monthly for members in good standing of the Minnesota Transportation Museum, Inc.

Articles and photos of museum interest are always welcome and will be returned upon request.

Please address communications to

William J Graham, Editor 5818 Knox Avenue South Minneapolis, MN 55419 Aaron Isaacs, Feature Editor

3816 Vincent Avenue South Minneapolis, MN 55410 along each proposed route want theirs to be first

Some argue that the first line should show the highest ridership potential (University Avenue), even though posing the greatest cost and disruption. Others argue that the first line should show enough ridership to justify cost, but also be the cheapest and simplest to build (Southwest). Still other argue that nothing should be done until all potential LRT corridors are fully evaluated. All of the arguements are valid, but none address the central concern that one or two LRT line might be all we ever see. Prolonging the contention with further studies drives up costs, delays benefits, and probably will not aid resolution.

Four earlier studies make a strong case for five to seven rapid transit corridors in the Twin Cities. Obviously, some parts of that system would be built before others, and completion could take two or more decades. Planning is and always will be on-going as economics, politics and demography continually change.

Right now, though, we are fairly sure that the transportation system is breaking down, just as former MTC Chairman Doug Kelm predicted back in 1973. A third of the freeway network will experience stop and go congestion during rush hour by year 2000, up from about a tenth now. The core areas will be strangling on their own traffic, and government will be even more hard put to provide cash for more freeways, buses and parking ramps. We need a better way to spend our transportation dollar, and LRT is a proven, cost-effective and available alternative.

The 1987 Legislature is considering a Regional Transit Board request for money to design a University Avenue LRT line between the two downtowns. At the same time, the Hennepin County Regional Railroad Authority is asking repeal of a 1985 law prohibiting use of County funds for a line from downtown Minneapolis to the south west suburbs.

The RTB's mandate is for planning and coordination. Hennepin County is an operating agency with the strong staff, management experience and funding resources needed for large public work pro-

jects. The County initiated right of way purchase for the southwest line in 1984.

Hopefully the two agencies can avoid set back by combining their assets and ideas in a common approach. Much is at stake. It will take a leap of faith about the future and good will to resolve the issue of who will get LRT first. There is every reason to believe not only that the region needs a multi-corridor system, but also that one really will be built.

#### **Board Of Directors**

The Board of Directors took the following actions at its meeting of January 20, 1987:

- 1. Tabled a motion by Gene Corbey to offer lifetime memberships in the Museum to all.
- 2. Conferred a lifetime membership in the Museum on George Rutman in recognition of his large donation toward purchase of Jackson Street Roundhouse and for his help with fund raising.
- 3. Directed the Treasurer to establish a separate account for the Stillwater Division.
- 4. Deferred action on the 1987 Museum budget to the March meeting
- 5. Endorsed the matching donation program proposed by Art Pew for the Jackson Street Roundhouse.
- 6. Terminated the Museum's post office box mailing address in Hopkins effective on June 1, 1987, and approved a new post office box address at Pioneer Station, St. Paul, to be announced.
- 7. Approved establishment of an endowment fund and appointed a committee to recommend administrative policies and procedures for the Museum. The committee will consist of John Stein, chair, Art Pew, Ken Snyder, Curt Allen, and Nick Modders.
- 8. Increased membership dues in the Museum, effective in 1988, to \$20.00 for Associate, \$25.00 for Individual and \$30.00 for Family memberships. Dues proceeds are to be divided between the Endowment

Fund (\$2.00) and the following separate funds: General, Minnegazette, Traction, Railroad, Stillwater, Jackson Street Roundhouse.

- 9. Directed the Minnegazette Editor to limit press runs to 50 copies more than the distribution list, to limit each issue to no more than 12 pages, and to limit the annual cost of the Minnegazette to no more than \$15 per member.
- 10. Appointed a committee to consider observance of the Museum's 25th Anniversary consisting of Curt Allen, John Stein, Bob Renz and Ken Snyder.
- 11. Required both the Treasurer and the Museum officers responsible for expenditures to co-sign all disbursements.
- 12. Approved partial reimbursement of expenses to Hudson Leighton for travel to Los Angeles to inspect a diner coach.

The Board took the following actions at its meeting February 17:

- 1. Revised Minnegazette publication guidelines approved on January 20 (details on page 2.)
- 2. Confirmed the appointment of Lowell Saterbak, transportation manager with Andersen Corporation, and Marvin Schuickels, general manager of Minnesota Commercial Railways, to serve as Directors At Large of the Museum.
- 3. Approved excursion operations at New Brighton Lumber Jack Days June 13-15 conditioned upon satisfactory arrangements for insurance and transportation.

#### Correction

Member Bob Garland corrects the cover caption of the last issue. The building to the left of the Selby Tunnel is the Amherst Wilder mansion, torn down in the late 1950's. Thanks, Bob.

## **Minnegazette Deadline**

Please send photos and articles for the May/June issue to the editor by April 20, 1987.

# Next Membership Meeting

The next general membership meeting will be held at 7:30 p.m., March 24, Park Center Senior High School, 7300 Brooklyn Boulevard, Brooklyn Park. Mike Buck will present audio visual programs after the meeting. Members are invited to bring slides, movies, or VHS video tapes.

## **Membership Report**

The Museum is 25 years old this year. We began when ten members united to save Car 1300 for future operation. In the ensuing ten years, we renovated the Milwaukee Road depot at Minnehaha Park in south Minneapolis, and staffed it with tour guides.

In 1986 we reached a total of 817 members of whom, as of February 20, 568 are paid up through 1987 or beyond. The Museum now reaches out to 29 states and four foreign countries mainly due to the work of our Minnegazette staff.

About 173 members are active in MTM operations, including 93 in the Traction Division, 70 in the Railroad and Stillwater Divisions and 10 in management support other than those in elected office. Many of this 21 percent portion of the membership take part in more than one division's work.

If you have not yet renewed, please do so now. Remember that April 10 is the cutoff for inclusion in the 1987 Membership Directory to be mailed with the May/June Minnegazette. All member not included in the roster are dropped, but can be reinstated with payment of membership fees prevailing at the time.

Enjoy being a member of a great transportation organization. We expect to make great strides in 1987, at Jackson Street Roundhouse, Stillwater, and Como-Harriet. We want you to be with us.

Raymond R. Bensen Membership Secretary





San Jose Car 124 receives finishing touches in Trolley Project maintenance barn. Volunteer restoration work is top notch. George K. Isaacs Photo.



Street-level loading platforms, simple stations and single track line held down LRT cost in Sacramento.

## George Isaacs Joins RTB

The Metropolitan Council has appointed MTM member George K. Isaacs to a four year term on the Regional Transit Board. He will represent northern St. Paul suburbs, and is regarded in the Twin Cities as a leading authority on light rail transit. Under a provision of state law,

George also will represent senior citizens on the RTB, a distinction for which he recently qualified.

The RTB was established in 1984 to take over transit planning and regulation from the Metropolitan Transit Commission. The MTC and private providers continue to operate bus service under RTB direction. The Board consists of eight members appointed by the

MINNEGAZETTE

Metropolitan Council and a chairperson appointed by the Governor. During the past two-years, the RTB has written a five year service plan for the seven-county metropolitan area. This year it is asking the Minnesota Legislature for \$3.5 million for LRT engineering in the University Avenue corridor.

George has advised several local transit studies, and serves on the **Transportation Advisory Board** affiliated with the Metro Council. His own studies of LRT have taken him around the US, Canada, Europe, and Australia. He knows something about volts and amps, having designed power systems for Fairbanks-Morse, Onan Corporation and the **Como-Harriet Streetcar Line**. He served as MTM president during 1970's.

# LRT Blooms In California

#### Lines Building In Sacramento, San Jose

-George K. Isaacs

Florence and I toured central California in late January where we visited the light rail transit projects under construction in Sacramento and San Jose. Here is what we saw.

Sacramento decided in 1979 not to build a federally-financed freeway, and instead to use the funds for an LRT line. The 18.3 mile project consists of two lines joining in the downtown on a tram pedestrian mall a block for the State Capital. The cost will total \$170 million including 26 light rail vehicles, and average just under \$9.3 million per mile.

The Northeast Line is complete. Except in downtown, it is single track with passing sidings. Portions use private right of way, city streets, highway medians and side of road reservation. The shop and yard is operational, and revenue service will begin in March, 1987.

The South Line is still under construction, and looks to be a year from completion. Sacramento's LRT is a bare bones project built on a limited budget.

San Jose, key city in the burgeoning Silicon Valley, has begun construction of a 20-mile LRT line. It



Duewag U-2 car makes a test run on Del Paso Street, Sacramento



K Street Mall, Sacramento, is reserved for pedestrians and LRT. Ramp on left is for wheel chair boarding. George K. Isaacs Photo.

will be entirely double track, with a half-mile of tram pedestrian mall on adjacent downtown streets. With 50 light rail vehicles, the cost will be \$372 million, the second most expensive LRT installation in North America at an average cost of \$18.5 million per mile.

#### Relics To Run In San Jose

Historic streetcars will operate on San Jose's transit mall during offpeak hours and on weekends. The San Jose Trolley Project, a nonprofit corporation formed in 1982, is funding the restoration of six vintage streetcars. The corporation has collected over a million dollars and hopes to raise a half million more.

Project manager Fred Bennett is an experienced car restorer from the Connecticut Electric Railway Museum at Warehouse Point, CT. Volunteers work under his direction. A 6,000 square foot carbarn houses the cars, and replicates buildings from the trolley era. By comparison, MTM's maintenance barn at Linden Hills covers only 1,200 square feet.

I was impressed by the quality of workmanship applied to these cars. Naturally, I took along pictures of MTM's work on Car 78. They were impressed at our progress on the basket case we unloaded in November, 1984. They have had to make new brass castings for bulkhead window guards and strap pole supports, and have purchased trucks from abroad.

Four of their cars are indigenous to California. Their pride and joy is No 124 which actually ran in San Jose from 1913 to 1934. Next in line for restoration is Car 129, a California-style car from Sacramento. Their collection includes a car from Santa Cruse, CA., a Brill single trucker from Oporto, Portugal, and a double truck Peter Witt type car from Milan, Italy. Latter two are functioning cars that need cosmetic work.

If you are in the San Jose area, call Fred Bennett at (408) 293-2276 to schedule a visit. He and his volunteers are a hospitable group.

# Waite Park Agreement Signed

Hearty thanks to the City of Waite Park for finalizing as agreement with MTM allowing us to remove rail, ties and equipment from its property near St. Cloud.

The Burlington Northern Railroad closed a large portion of its car shop at Waite Park. Members may remember that the former Great Northern shop once housed the ancient coachs that went with the St. Paul & Pacific's famous "William Crooks." The City of Waite Park has purchased the entire property for development as an industrial park. Trackage still in place has no value for the City, which has allowed the Museum to salvage it.

Most of the rail is the same size used at our Stillwater site, and some of it will go there. Some will be used to install rail access to the Jackson Street Roundhouse in St. Paul. MTM can recover our costs by selling under-sized rail as scrap, and over-



Salvaging track from BN's former Waite Park car shop is a big challenge for Rod Kriesel and Orville Richter. They need lots of volunteer help. Rodney Kriesel Photo.



Former Northern Pacific wing snow plow No 30 has been donated to the Museum. Plow is at Waite Park near St Cloud, and will move to St Paul when storage is available. Rodney Kriesel Photo.

sized rail for re-lay. Thousand of good ties are salvageable, and thousands more will be sold to landscapers and nurseries.

Thanks to members Orville Richter and Rodney Kriesel for arranging to get this material. Rodney is supervising the salvage operation. He needs all the help he can get, especially from members who live north of the Twin Cities. Please call Rodney if you can help turn this asset into inventory for the Museum's development.

#### Stillwater News

Several projects beginning this

year will make the Stillwater Division really serve our members with "model railroading in 12-inch scale".

Trackwork changes are needed at three locations on our line to make it serviceable on a regular basis. An engine house is needed to protect our motive power from vandalism and to provide space for parts storage, tools and light repairs. We also need a section house for track cars and tools. We need people to work on track and to service cars and motive power throughout the summer.

Regular operations are planned to start in late May using doodlebug 9735 and former Rock Island passenger cars. Engine 328 will appear at special holiday weekends and at the Lumber Jack Days festival.

"How can I fit in?" you ask. The answer is just about anywhere you wish. If you have not already sent a Time, Talent and Interest Survey, please contact me. I'm sure we have a place for you.

John L. Stein VP-Stillwater Division

## **Purchasing Reminder**

The Board of Directors reminds members that all expenditures on Museum projects must be authorized beforehand by a purchase order signed by the responsible vice president. The Treasurer will not reimburse members' expenses or pay bills for suppliers unless they are covered by a purchase order. Unauthorized billings will be returned to the responsible member for payment.

# Jackson Street Appeal Needs Members' Help

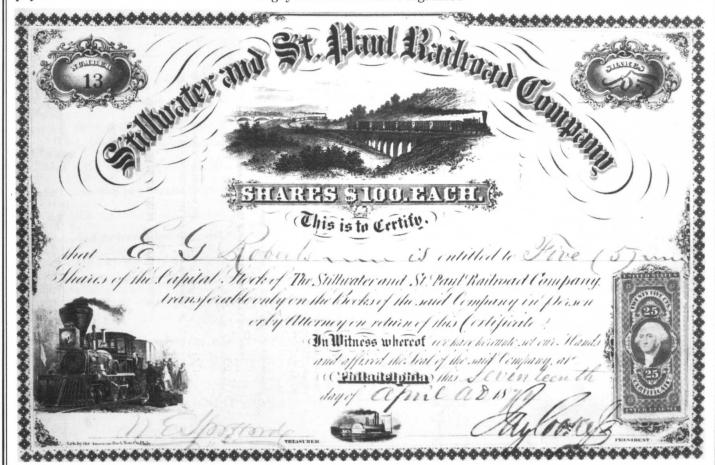
Director At Large Art Pew challenged MTM members in late January to a one-time fund raiser for Jackson Street Roundhouse and our Stillwater & St Paul Railroad. He offered to match each dollar members subscribe with five dollars of his own to raise a grand total of \$232,008. Members received a mailing in early February outlining Art's proposal.

The main goal was to pay for development of workshop and exhibit space in portions of the Roundhouse. The secondary goal was a storage building at Stillwater and continuation of track improvements. Art set a deadline of March 7, subsequently extended to March 30.

About one-fourth of the membership had responded as of March 4. Subscriptions totaled \$29,089, about three-fourths of the amount needed from member subcriptions. **Doris Voligny** and **Bob Ball** have organized a telethon to contact members who have not yet responded.

The Board of Directors on February 28 authorized a second mailing to members explaining why this fund drive is so urgent. The Museum's railroad collection will have no home at the end of 1987 other than the Jackson Street Roundhouse. To occupy the Roundhouse, MTM must build new trackage, modify parts of the building, and make up for lost rents from tenants. If the fund drive fails, treasures such as Engine 328 and Dan Patch 100 probably will spend next winter outside exposed to the elements.

Telephoning will continue, and it is hoped that 100 percent of the membership will respond with some amount of support. If only 239 members can raise three-fourths the amount needed, then the other 576 members should be able to subscribe the remainder. Please contribute now.



Stock certificate of Stillwater & St. Paul Railroad Company, organized in 1867. President Jay Cooke (signature) headed Lake Superior & Mississippi Railroad which leased S&StP upon its completion in 1871. Minnesota Historial Society.



ARM Convention delegates assemble at Arden Trolley Museum against cars from Philadelphia Red Arrow Lines and Pittsburgh Railways. Gene Corbey and Roy Harvey are in lower left corner. ARM Photo.

#### ARM Convention Set

The Association of Railway Museums (ARM) will hold it's 1987 convention at the Orange Empire Railway Museum in Riverside, CA., October 15-19

Members of MTM who wish to attend are encouraged to do so. It is a chance to visit and see the accomplishments of other museum groups. Registration information will be published when it becomes available.

# 1986 ARM Report

- Roy Harvey

Gene Corbey and I attended the 1986 Association of Railway Museums 1986 Convention on September 18-22. It was held at the Arden Trolley Museum, located at Washington, PA, about 25 miles from Pittsburgh. On Saturday, October 20, we rode a chartered bus from the Station Square Sherator Hotel to the Museum where the day was spent in seminars on volunteers, track, overhead, riviting and other topics. We attended an interesting tour of Arden Electric Company's plant which special-

izes in rebuilding traction motors.

The day featured an excellent lunch served at the picnic ground along the Museum track and an evening barbeque. Streetcar rides were available during the day and evening which was capped by country music entertainment. Buses took the group back to the hotel about 10 p.m.

We attended the ARM annual meeting on Sunday lasting until noon. After lunch we walked a few blocks to the **Monongahela Incline Railway** that has operated continuously since 1870. It is located at Carson Street near the Smithfield Bridge. The track gauge is five feet, and the total length is 640 feet on a gradient of 71.5 percent for a total rise of 375 feet. The incline operates at five minute intervals during the day and 15 minute intervals during late evening. The fare is 60 cents one-way.

From the top of the incline, we walked about a mile along Grandview Avenue to the **Duquesne Incline** which now is a museum operation. This line is 800 feet long on a 30 percent grade rising 400 feet. The incline would have been abandoned except that Duquesne Heights residents did not want their landmark to disappear. They formed the **Society** 

for the Preservation of the Duquesne Heights Incline, repaired it and reopened service in July, 1963. The Society operates it's incline much like MTM operates our streetcars. We toured the hoisting engine room and found it very interesting.

Of some 15 inclines that once operated in Pittsburgh, the Monongahela and the Duquesne are the only two left. We were impressed by their operations and felt fortunate to have ridden them.

We spent the evening on a dinner cruise of the Monongahela and Allegheny Rivers. The views of Pittsburgh at night made it hard to concentrate on the meal. At breakfast the next morning, we had a view of tow boats and the double track mainline of the **Pittsburgh & Lake Erie**, where passing freight and trailer trains entertained us. The hotel occupies the site of the main railway station, a short distance from the site of the first blast furnace built in 1859.

After breakfast, we walked to Station Square at Carson Street, where we boarded three chartered PCC streetcars for a tour of the **Port Authority Transit** (**PAT**) light rail system. The cars crossed the Panhandle Bridge into downtown Pittsburgh, where the line ducks underground to the Steel Plaza, Wood Street and Gateway Center stations. Cars loop at the end of the line, and we saw that the stations were spared no expense.

Crossing back over the River, the cars proceeded through the south side of the city. A PAT tour guide on each car answered questions about the system and arranged the many photo stops. We proceeded to Library at the end of the line. Many cuts, high bridges, both double and single track with electric block signals all made it a most interesting ride.

We arrived at South Hills Village at 11 a.m. where we had a tour of the transit system's shops. It is a spanking new maintenance complex shared by both the PCC cars and the new Siemens-Duewag LRT cars costing \$900,000 each.

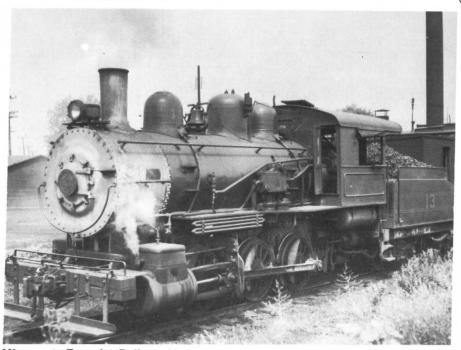
The yards were full of PCC's in various colors and conditions. PAT is rebuilding some 45 PCC's to use along with the new Duewags. We saw many PCC's stripped down to the body shell. being completely rebuilt from the rails up. When finished, the PCC's are painted bright red with a black stripe through the windows and a white roof. The interiors are completely new with new seats and trim. We were told that the cost to rebuild a PCC is about \$350,000. It was hard to believe they are over 40 years old, since excellent workmanship makes them look quite up to date.

After lunch at the shopping center, we reboarded the chartered cars to ride the various other LRT lines. Back at South Hills Station, we transferred to one of the new Duewags for the trip back downtown through the **Mt Washington Tunnel**, over the Mon River and into the subway.

That was the end of the 1986 ARM Convention. It was very well organized, informative and entertaining, and we were glad to have been part of it.

# Minnesota Transfer Sold

The new Minnesota Commercial Railway Company took over operation of the Minnesota Transfer Railway on February 1, 1987. The new owner, a Chicago investor group headed by John Gohmann, hopes to revive sagging traffic on the carrier's route through St. Paul's Midway industrial district and northern suburbs. Minnesota Transfer Railway Company continues to exist as a corporate entity.



Minnesota Transfer Railway No 13 simmers near St. Paul roundhouse about 1930. Milliam Moneypeny Photo.

Gohmann heads the new company. Edward Coxhead serves as executive vice president responsible for marketing, and Marvin Schickels will continue in his present capacity as general manager. Three of the Transfers's SW1500 locomotives have gone to the new company whose offices will be at the Cleveland Avenue Roundhouse. The old Minnesota Transfer office building on University Avenue will be sold.

The major railroad companies in the Twin Cities lead by James J. Hill organized the Minnesota Transfer in 1883 as a terminal connector among them. The Transfer ultimately built about 13 miles of mainline from the Milwaukee Road main at Merriam Park on the south to the Northern Pacific main in Fridley on the north. Currently it operates 51 miles of the railroad including 38 miles of industrial spur trackage.

Rumors have circulated for many years about disposition of the Minnesota Transfer. Agreement among the owning carriers always was just beyond reach, since although they wished to disband the company, the road served their interests better as a single entity. The model of a slimmed-down, independent shortline that has done well in rual areas provided the ansewer, and now will

be tested in an urban industrial environment.

New rates about \$100 per car lower than those of the Minnesota Transfer have earned Minnesota Commercial a warm reception from shippers and connecting carriers. Some former Transfer employees took early retirement, but many have been rehired. Wages were cut 12 percent, but employees receive a 17 percent profit-sharing plan as well as better health and holiday benefits.

"Heart of the Midway" was a fitting slogan for the Transfer, particularly in its generosity toward the Museum. The road has been a principal MTM benefactor, providing temporary shelter for Car 1300 in the early 1960's, and later opening its doors to MTM's railroad collection when it had no other home. The managers and employees of the Minnesota Transfer have been unfailingly patient and forthcoming in working with the Museum.

## Railroad Report

Minnesota Commercial Railway has asked the Museum to remove some of our rolling stock from the roundhouse area in St. Paul. They have promised to give 90 days notice of a total order to vacate, but such notice so far has not been given. For

#### MINNEGAZETTE :

the present, MTM may keep our locomotives at the old Transfer Roundhouse. Work on the doodlebug and DM&IR coach 30 can continue on one of the outside tracks. Some Museum rolling stock has been moved to storage at Twin Cities Arsenal, New Brighton, and members have begun tranfering parts and equipment to the Jackson Street Roundhouse.

Thanks to all who worked so hard the weekend of February 7 to unload the two freight cars reclaimed by Burlington Northern and to move a crane from the Net Tie Company yard. Crews worked well into the night both Saturday and Sunday. Thanks also to the wives and girlfreinds who waited patiently at the Roundhouse and at home.

These are the members who turned out and worked so hard to get these jobs done on time: Jack Anderson, Jim Annett, Ron Beck, Bernie Braun, Jeff Braun, Zeke Field, Jeff Garry, Ward Gilkerson, Wendell Gilkerson, Phil Hanson, Richard Kasseth, Rodney Kriesel, Rick Kuster, Hudson Leighton, Nick Modders, Gary Mogol, Steve Olson, Mike Reardon, Bob Renz, Orville Richter, Dave Rushenburg, Lee Rushenberg, Mike Schmitz, Larry Schulte, Keith Skewik, and Ken Snyder.

Special thanks to friends who lent their equipment: Wanda Simms of Simms Diversified for her tractor trailer, Tom Halaska of Carpenter Steel for their tandem flatbed, and to Minnesota Commercial Railway for use of their overhead crane and equipment. Thanks also to Ellen Tillman and Jim Johnson for speeding through our request for more storage track space at Twin Cities Arsenal.

Engine 2156 needs work before it can be moved to Jackson Street Roundhouse. We are looking for indoor space to store the other locomotives. Readers who have any ideas are asked to contact Ken Snyder.

Work continues on doodlebug 9735 to fix leaks and repair draft gear, aided by the approach of Spring with longer evenings and warmer weather.

The Museum has acquired two more former Lake Terminal &

Transfer switch engines, 103 and 105, which have been placed in storage. Thanks to those members for their donations toward purchase of these locomotives.

## **Traction Report**

The restoration of Car 78 has drawn big crowds throughout the mild winter. Bob Dumas and his minions enclosed one of the platforms and have begun work on the other. No 78 will be the Museum's first double-end car, and memberrs are learning to avoid the terms "front" and "rear". "North" and "south" are being cultivated to distinguish one end from the other.

Members are cleaning and painting the original steel body fittings, and are manufacturing new ones to replace those that are missing. George Isaacs made brass trim pieces for the clerestory, and the outside body paneling has been completed. The motor truck frame has been prepared for sand blasting, and overhaul of one controller is underway.

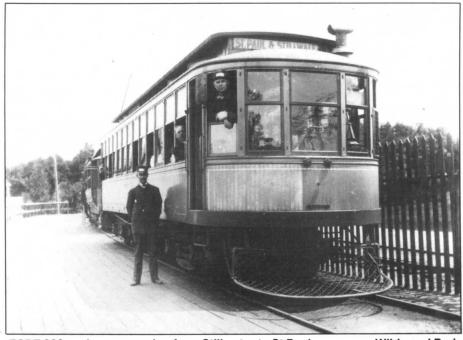
Arrangments are being made to obtain roofing canvas and two new pinion grears for the traction motor shafts. Walt Hotvet has been rebuilding the sliding compartment

doors and turning out new window sash in his basement workshop. **Keith Anderson** has obtained exterior paint carefully matched to samples of the original colors. No 78's paint scheme in 1893 is a matter of some conjecture. The colors uncovered during stripping look to be in a different arrangement from shadings visible in the old photo supplied by Wayne Olson.

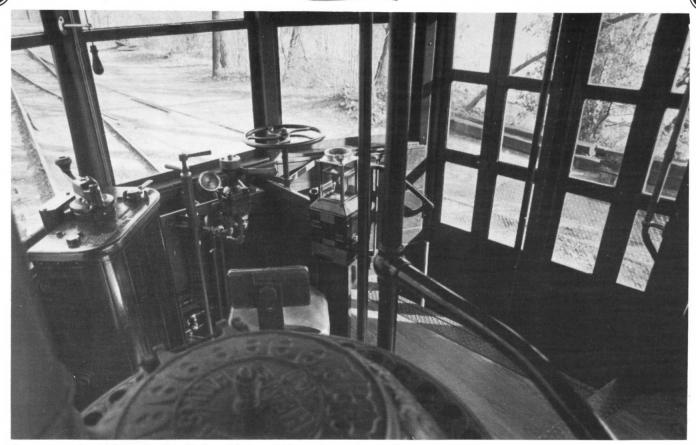
Vandals in early February cut a hole in the roof of the Linden Hills ready shed, apparently an attempted burglary. Nothing was stolen, but the roof of Car 265 which was directly under the hole sustained minor damage. A fence along the east wall of the maintenance barn is planned to discourage future forced entries.

Members unloaded 50 used relayquality ties at the Lakewood tie pile. They will be used in the spring track improvement program, which will begin as soon as the ground has thawed.

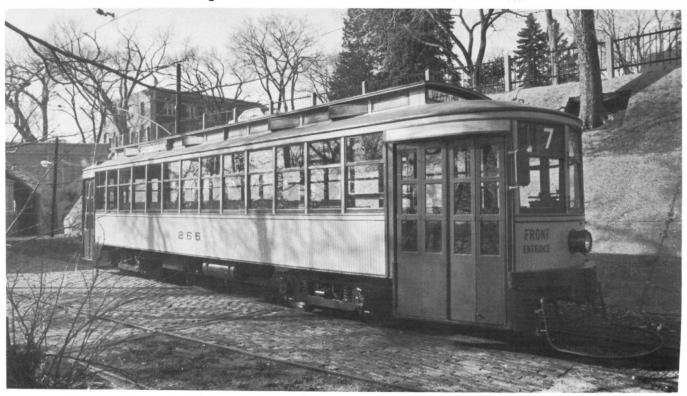
If you have not received a questionnaire but wish to work on the Como-Harriet Line this year, please drop a note or card to Mike Buck. If you have your questionnaire but have not mailed it in, please do so immediately. There is lots to do, and more hands are always welcome.



TCRT 800-series car running from Stillwater to St Paul pauses on Wildwood Park loading platforms, Willernie, about 1905. Removable headlamp hung from brackets below windshield. Behind is single-truck car running mid-day shuttle on Mahtomedi branch. Joel Hutchinson Collection.



Controls of Car 265 are hard to distinguish from 1930's views taken in Duluth. Mike Buck Photo.



Timeless view has Duluth Street Railway Car 265 reposing pristinely at the Linden Hills carbarns, Minneapolis, in October, 1982. She had finished her first two months of regular service on MTM's Como-Harriet Streetcar Line since retirement by DSR in 1939. Around 14,000 volunteer member manhours brought her back. Mike Buck Photo.



The note says that these Northern Pacific Railway Trains were photographed about in 1873. A guess is that the Eight-Wheelers are perched above the St Louis River between Duluth and Carlton in what became Jay Cooke State Park. Minneapolis Public Library collection.



Architect's sketch prepared in 1917 shows head house of St Paul Union Depot much as it appears today looking south from intersection of 4th Sibley Streets. Perimeter areas housed restaurants and public rooms on first floor, offices on second and third. Parking ramp fills two levels below ground, and extends under part of platform area. Three-story central ticketing hall with clear span ceiling measuring 100 by 300 feet housed Minnesota's first locomotive, St Paul & Pacific "William Crooks" owned by Minnesota Historical Society, during 1950's and '60's. Concourse area not shown bridged Third Street and 22 loading tracks. Facility was owned by St Paul Union Depot Company controlled by seven participating railroads. In the early 1980's, building was renovated to house restaurants and shops. US Postal Service bought loading platform area. Dam Collection Courtesy of Minnesota Historical Society.

# A Day At St Paul Union Depot - June, 1941

#### - Aaron Isaacs

The June, 1941 Official Guide was reprinted for schedule collectors a few years ago. It shows that the St Paul Union Depot (SPUD) was by far the busiest railroad spot in Minnesota, with 93 daily passenger train movements, excluding freight and numerous deadhead moves to and from the coach yards.

A typical day began at 5:55 a.m. with arrival of NP Train No 65, the incredibly slow (6 hour 25 minutes) plug run from Duluth. It ended at 11:59 p.m. with the departure of No 65's opposite number, No 66 to Duluth. The intervening eighteen hours saw an arrival or departure every twelve minutes on average. This can be misleading since one-third of all business, 31 trains, were concentrated in the two hours from 7-9 a.m., a train every four minutes.

This burst of activity reflects the reality of travel in the pre-airline era. Rather than waste and day in transit, travelers used overnight trains. Eleven of the twenty daily Chicago trains were

Continued on next page

## St Paul Union Depot Arrivals & Departures - June, 1941

Time | Train From To (A.M) 5:55 NP 65 Duluth Mpls GN 28, Fast Mail 6:30 Willmar, Spokane St Paul 6:50 RI 18 Kansas City Mpls 7:00 RI 562, Zephyr-Rocket St Louis Mpls CGW 21, Twin City Ltd Omaha, Oelwein Mpls 7:15 CBQ 47, Blackhawk Rock Island, Chicago 7:15 SL/CNW 4, Soo-Minot, Vancouver St Paul Dominion 7:20 Owen, WI, Chicago Mpls 7:25 CNW 210, Mondamin Sioux Falls, Omaha Mpls MILW 1, Pioneer Ltd Chicago Mpls 7:30 NP 12, Int'l Falls Exp Int'l Falls St Paul 7:35 SL 105 St Paul Enderlin, ND CNW 202, Nightingale Omaha, Los Angeles 7:35 Mpls Mpls Sault Ste Marie, Montreal Madison, Manitowoc, CNW 515, Victory Mpls Chicago Wilmar, Williston 7:45 St Paul NP 4, Alaskan 7:45 Seattle, Tacoma St Paul 7:55 SL 110. Winnipeger Winnipeg St Paul CNW 405, North Milwaukee, Chicago Mpls Western Ltd 8:00 GN 8, Winnipeg Ltd St Cloud, Winnipeg, St Paul Grand Forks, Vancouver 8:00 GN 11, Alexandrian St Paul St Cloud, Grand Forks 8:10 CNW 62, Namekagon St Paul Ashland, WI 8:10 CGW 23, Minnesotan/Mill Cities Ltd Oelwein, Kansas City, Chicago Mpls 8:15 CBQ 51, North Coast Ltd Chicago St Paul 8:15 NP 62 Mpls Duluth

Source: 1941 Official Guide

overnights. The North Western (C&NW), Burlington (CB&Q) and The Milwaukee Road (CMStP&P) each ran three overnight trains with early and late departures. The Soo Line and Chicago Great Western (CGW) each ran one. In addition to Chicago, Pullman sleepers were available to Fargo, Winnipeg, Duluth, St Louis, Kansas City, Omaha and many other destinations.

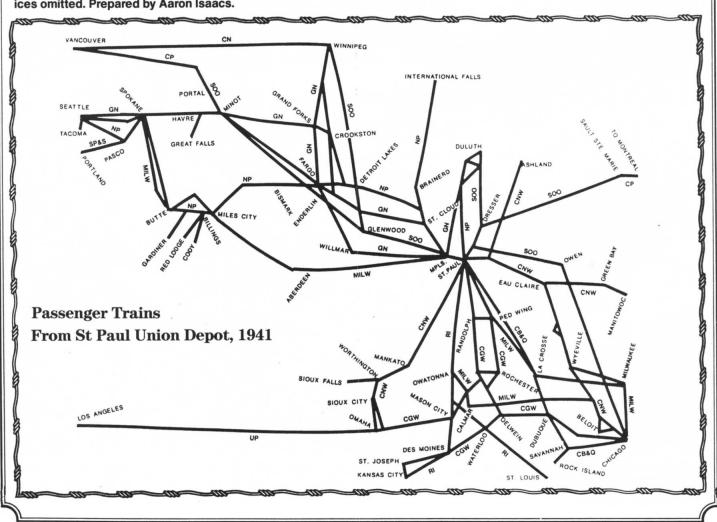
The Chicago-Seattle flagships, "Empire Builder," "North Coast Limited," and "Olympian," all ran overnight to Chicago. Each spent fifteen to twenty minutes being assembled in St Paul, compounding the already hectic schedule of movements around the depot.

SPUD really was a run-through station, terminating only twenty of it ninety-three trains. Minneapolis' two main depots terminated seventy trains, including all those of the Minneapolis & St Louis and the Great Northern's Hutchinson and Milaca locals that never made it to St Paul. Of SPUD's trains, only North Western's Ashland motor

8:20	CGW 44	Mpls	Rochester
8:20	SL 2	Mpls	Chicago
8:25	CBQ 22, Morning Zephyr	Mpls	Chicago
8:30	CBQ 49, Empire Builder	Chicago	St Paul
8:35	NP 1, North Coast Ltd	St Paul	Winnipeg, Cody, Red Lodge, Gardner, Spokane Portland, Tacoma
			Seattle
8:35	MILW 6, Morning Hiawatha	Aberdeen	Chicago
8:40	MILW 15, Olympian	Chicago	Seattle, Tacoma
8:45	CNW 502, Viking	Madison, Chicago	Mpls
8:45	CGW 22	Mpls	Omaha
8:45	GN 27, Fast Mail	St Paul	Wilmar, Spokane
9:00	CBQ 52	Mpls	Chicago
9:00	GN 20, Gopher	St Paul	Duluth
9:15	MILW 118, MN Marquette	Mpls	Calmar IA, Madison, Chicago
9:40	CNW 203, North American	Mpls	Omaha
10:30	MILW 103, MN Marquette	Chicago, Madison, Calmar	Mpls
11:00	MILW 58	Mpls	Chicago
11:59	MILW 55	Chicago	Mpls
(P.M.)			
12:30	NP 61	Duluth	Mpls
12:40	GN 23, Badger	Duluth	St Paul
2:50	RI 507, Kansas City Rocket	Mpls	Kansas City
1:00	MILW 100, Aftn	Mpls	Chicago

Schematic routes served by through passenger trains and through cars carried by connecting trains. Some branchline services omitted. Prepared by Aaron Isaacs.

MINNEGAZETTE-



#### MINNEGAZETTE:



From atop the 1st National Bank building looking southeast in 1931, SPUD loading tracks converge toward wye with Chicago, Burlington & Quincy mainline below Dayton's Bluff. Milwaukee Road mainline to Minneapolis and Seattle paralleled Mississippi River through depot at far right. Depot head house building and concourse appears just behind observation deck railing. St Paul Daily News Photo Courtesy of Minnesota Historical Society.

train, the "Namekagon," failed to reach Minneapolis.

Adding further to the fun was the need to wye all CB&Q trains and all of North Western's Chicago trains, NP Duluth trains, and the Milwaukee's Austin trains, either before or after entering the depot. Some consists in later years were hauled backwards to and from Minneapolis, and the engines ran around the train in St Paul.

Amtrak gradually is rediscovering the idea of through cars passed from one train to another. In 1941 the through car champion was the North Coast Limited, which was switched no less than seven times between Seattle and Chicago as follows:

- (1) Seattle. Received through cars from Tacoma.
- (2) Pasco, WA. Received through cars from Portland via SP&S.
- (3) Butte, MT. Dropped cars from Tacoma, Seattle and Portland. Received cars from Kansas City.
- (4) Livingston, MT. Dropped and received Yellowstone Park branchline

	Hiawatha	I	
1:55	RI 16, Short Line Express	Kansas City	Mpls
1:56	SL 62	Mpls	Duluth
3:00	CNW 400, The 400	Mpls	Milwaukee.
		1 -	Chicago
3:00	CBQ 21, Morning	Chicago	Mpls
	Zephyr		1
3:30	CGW 24, Mill Cities Ltd	Mpls	Rochester,
			Oelwein, Kansas
			City
4:00	SL 1	Mpls	Chicago
4:30	CBQ 24, Aftn Zephyr	Mpls	Chicago
4:30	GN 24, Badger	St Paul	Duluth
5:05	MILW 5, Morning	Milwaukee, Chicago	Aberdeen
10.00.00	Hiawatha	,	1-2-2-2-3
5:19	SL 63	Duluth	Mpls
5:30	RI 561, Zephyr-Rocket	Mpls	St Louis
5:50	SL 6	Mpls	Owen,WI
5:50	SL 106	Enderlin,ND	St Paul
5:55	RI 15, Short Line Exp	Mpls	Kansas City
6:20	MILW 122	Mpls	Calmar,IA
6:30	CGW 43	Rochester	Mpls
7:00	MILW 121	Calmar, IA	Mpls
7:15	CNW 204, North	Omaha	Mpls
	American	1.	-
7:20	CNW 510, Viking	Madison, Chicago	Mpls
7:20	RI 508, Minneapolis	Kansas City	Mpls
	Rocket		
7:30	CGW 25	Oelwein, Kansas City,	Mpls
		Omaha	
7:45	SL 109, Winnipeger	St Paul	Winnipeg
8:00	GN 19, Gopher	Duluth	St Paul
8:05	CNW 514, Victory	Mpls	Madison,
			Manitowoc,
		1	Chicago
8:25	SL 8	Mpls	Sault Ste Marie,
		1	Montreal

#### MINNEGAZETTE-

cars.

(5) Billings, MT. Dropped Billings cars and Kansas City cars to CB&Q. Received Red Lodge branchline cars and Cody, WY, cars from CB&Q.

(6) Manitoba Jct, MN. Received cars from Winnipeg.

(7) St Paul. Dropped St Paul cars.

Even though St Paul trains did not serve some destinations, through cars ran from St Paul to Montreal via Soo and Canadian Pacific, to Vancouver via GN and Canadian National, and to Los Angeles via North Western and Union Pacific. Lesser known through cars went to Rock Island, IL, via CB&Q; and to Sioux Falls, SD, and Manitowoc, WI, via North Western. Chicago Great Western's train numbers mostly ended at their divisional town of Oelwein, IA, where they met trains from Chicago, Kansas City, Omaha and Rochester, MN. Cars were swapped to provide through service between all possible combinations of destinations, much like the airlines' modern day "hub and spoke" operations.

8:30	GN 7, Winnipeg Ltd	St Paul	Grand Forks, Winnipeg, Vancouver
8:35	CNW 63, Namekagon	Ashland	St Paul
8:45	CNW 201, Nightingale	Mpls	Omaha, Los Angeles
8:45	CGW 26, Minnesotan	Mpls	Oelwein, Chicago, Omaha
9:00	CBQ 45	Chicago	Mpls
9:00	CNW 503, Soo-Dominion	Madison, Chicago	St Paul
9:05	GN 12, Alexandrian	St Cloud, Grand Forks	St Paul
9:15	CNW 401, The 400	Milwaukee, Chicago	Mpls
9:20	MILW 56, Fast Mail	Mpls	Chicago
9:35	GN 3	St Paul	Williston
9:40	NP 11, Int'l Falls Exp	St Paul	Int'l Falls
9:45	CBQ 45, Aftn Zephyr	Chicago	Mpls
10:00	SL 3, Soo-Dominion	St Paul	Minot, Vancouver
10:15	CNW 209, Mondamin	Mpls	Sioux Falls, Omaha
10:15	NP 3, Alaskan	St Paul	Seattle, Tacoma
10:20	CBQ 48, Blackhawk	Mpls	Rock Island, Chicago
10:30	GN 2, Empire Builder	Seattle, Tacoma, Portland, Great Falls	St Paul
10:45	NP 2, North Coast Ltd	Seattle, Tacoma, Portland, Gardner, Red Lodge, Cody, Winnipeg	St Paul
10:55	CBQ 44, Empire Builder	St Paul	Chicago
11:00	CBQ 50, North Coast Ltd	St Paul	Chicago
11:00	MILW 16, Olympian	Seattle, Tacoma	Chicago
11:00	RI 17	Mpls	Kansas City
11:20	CNW 406, North	Mpls	Milwaukee,
	Western Ltd		Chicago
11:25	CNW 506, Chicago Ltd	Mpls	Madison, Chicago
11:30	MILW 4, Pioneer Ltd	Mpls	Chicago
11:59	NP 66	Mpls	Duluth



The Third Street Viaduct has been the train watchers' perch of choice for decades. A Great Northern local behind E-7 power accelerates out of St Paul Union Depot in 1966. E and F units lay over at SPUD roundhouse between runs. Aaron Isaas Photo.

# Shortest Electric Railroad in Minnesota

- Aaron Isaacs

As you drive through the inner yard of the Northland Aluminum Products plant in St. Louis Park, it's the last sight you'd ever expect to see. Connecting the manufacturing and warehouse building is- well, it's a railroad-but less then 100 feet long. The entire line is slightly longer than the width of the service road that it crosses protected by standard crossing flashers and gate.

The little train solves a short distance transportation problem, according to Northland's founder and chairman, H. David Dahlquist, Sr. When the company's growth made a second building necessary, manufacturing and distribution were split up. The city of St. Louis Park wanted the service road bet-

ween the buildings kept open for fire access. This lift a gap that virtually all Northland products must cross.

At first trucks were used, but the loading and unloading was time consuming and damage was all too common. After toying with bridges and various conveyor schemes, Dahlquist, who admits to being something of a rail buff, asked Vice President of Engineering Jorgen Jorgensen to design a railroad.

The result is surprisingly sophisticated and completely homemade. The vehicle is essentially a detachable section of the automated conveyor belt in the two buildings. It has a roller conveyor that couples onto those in the buildings. Preset electric relays stop the rollers when four pallets weighing up to a ton each have been loaded onto the railcar. An operator unplugs the conveyor and starts the short journey. Relays automatically close the door to the

building, open the door to the other, and activate the crossing signal and gate. Should the operator approach the door too fast, relays are triggered that override the controls and decelerate the car. Once docked, the conveyors are coupled and the pallets move into the building.

The deceleration override reflects Northland's commitment to minimize in-transit damage. Jorgenson wanted an extremely rigid track for the same reason. Heavy steel square beams were used as rails and set in a concrete base.

Power was originally an Onan propane engine running a hydraulic pump. The pump drives hydraulic motors on each of the four axles. The use of a manual hydraulic valve allows infinitely variable speed settings. This same hydraulic valve system powers the building doors and the on-train conveyor, which runs off house power when coupled



No fewer than six steam engines appear in this 1925 view looking west of SPUD platform area. Roof of concourse building extends above platform shelters in background. St Paul Daily News Photo Courtesy of Minnesota Historical Society.

to the building conveyor. Jorgensen says that he may have overdone the design of the train, but he was having too much fun to quit.

The train began running in 1975. After a couple of years the car was electrified and the gas engine removed. Electricity is sent through an extension cord suspended from pulleys that ride an overhead wire. The railroad sees daily use. Jorgensen is pleased and somewhat surprised by its reliability. About the only thing that slows it down is an occasional heavy snow.

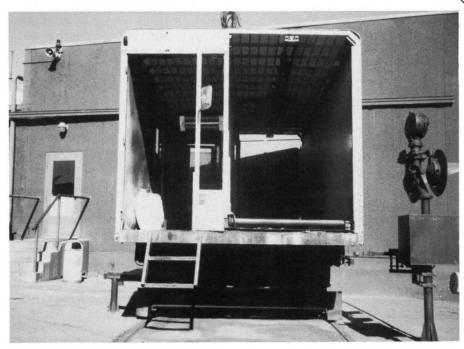
# Parts of "Grand Marais" Story Surface

The secrets of MTM's office car "Grand Marais" are unfolding something like an Orient Express mystery novel. Pieces fall into place without answering the central questions: was the car General Russell Alger's "Michigan" or another Alger, Smith & Company car named "Grand Marais," or were the two cars one and the same?

The latest clues come from a 1975 doctoral dissertaion by Rodney E Bell entitled "A Life of Russell Alexander Alger, 1836-1907," published by the University of Michigan. Bell now heads the History Department of South Dakota State University at Brookings. His 442-page book contains highly detailed information on Alger and his extensive travels around the US on his private car "Michigan." Alger was a self-made millionaire in logging and railroads who became a leader in Republican politics and twice ran for President of the United States.

Alger was born on a farm in Medina County, Ohio. Orphaned at age 12, he raised a younger brother and sister, mainly educated himself, and practiced law briefly before the Civil War. He enlisted and was wounded twice in the course of 65 battles, rising to the rank of colonel. His friends included Generals Sherman and Custer, and he was made a breveted major general by President Andrew Johnson in 1867.

Alger built his logging business north of Detroit among several companies he formed during the 1870's. His first railroad was a narrow gauge built in 1878 near Harrisville, MI, connecting logging operations to



Is this a unit train? Northland Aluminum's uncommon carrier handles products between plant at left and warehouse. Home-built electric/hydraulic rail car was most practical answer to a transportation dilemma. Aaron Isaacs Photo.

Lake Huron where he operated a fleet of steam tugs. Alger, Smith & Company was formed in 1881. Over the next three decades, its operations spread to Upper Michigan, Minnesota, Alabama, Florida, California, and Quebec. One of Alger's business partner was William Van Horne, builder of the Canadian Pacific Railway.

The General entered politics in 1884 when he was elected to a twoyear term as Governor of Michigan. He purchased the car "Michigan" from the Pullman Company in that year, and seems to have traveled all over the country on political junkets over the next decade.

Alger ran for president in 1888, traveling the continent to curry delegates to the Republican Convention in Chicago. He held off the competition through six ballots before losing to Benjamin Harrison. The idea of being Commander In Chief appealed to him. Elected commander of the Grand Army of the Republic, a 19th Century forerunner of the American Legion, Alger cultivated Civil War veterans for another presidential run.

The Republicans convened in Minneapolis in 1892, and Alger again failed to get the nomination. He became a close friend of Ohio Governor William McKinley, however, and helped McKinley through some financial difficulties. Over the next four years, he helped put together McKinley's 1896 presidential campaign.

Alger organized a 9000-mile whistle stop tour for McKinley during September and October of 1896. The tour was accompanied by four other Civil War generals, and was targeted at veterans. The train consisted of the "Michigan," a sleeper loaned by George Pullman, and a flatcar carrying two artillery pieces to be fired in each town as a crowd getter. Starting in Chicago on September 21, more sleepers were added as the train moved through Illinois, Iowa, and Kansas. Newspaper clippings reported a stop at Marshaltown, IA, on September 28, and later at St Paul and Sioux City. Alger wrote to his wife that he had made up to eight speeches in a day, and that he was tired.

The Bell dissertation gives extensive detail about Alger's Cabinet post as manager of the Spanish American War during 1898-99, and his appointment to the US Senate from 1903 until his death in 1907. Bell has agreed to search his papers for other references to the "Michigan" and Alger's railroad enterprises.

So the Museum still does not know



Northern Pacific Engine 2156 heads for Como Park on shoe-fly track, St. Paul, September 16, 1954. Burning rags made smoke but no steam. Today, engine awaits overhaul by MTM. St. Paul Pioneer Press Photo Courtesy of Minnesota Historial Society.

exactly what we have in this intriguing office car. Bell provided an 1887 letter by Alger describing his car to a New Yorker who wanted to use it. The letter mentions certain details like a folding bed/bookcase not found in MTM's car. The floor plans, however, seem to be about identical.

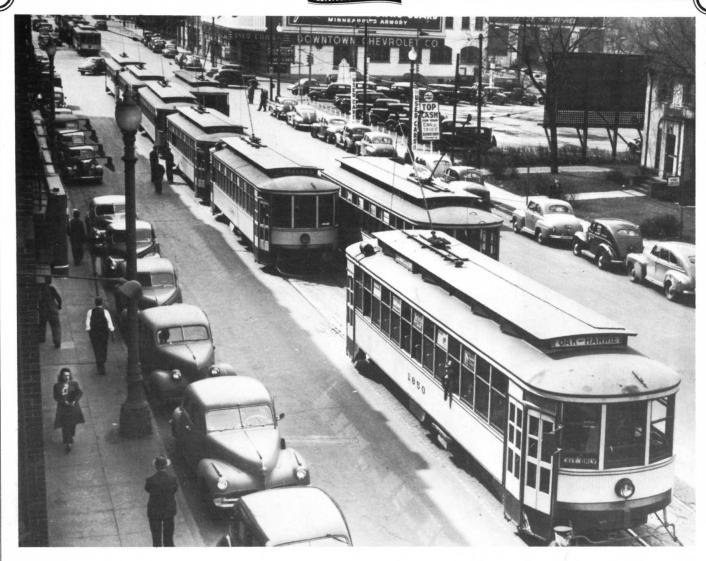
It is entirely possible that the Museum's car was not Alger's "Michigan," and that his company could have bought another car named "Grand Marais" for its general manager, John Millen. But it also could be that it is the "Michigan," in which case MTM owns a highly significant historic piece. The answer probably lies somewhere in the car itself.

In a related note, Win Stephens Jr, whose father bought MTM's car from Alger, Smith in 1926, reports that his father knew the car was very old. He and his father logged thousands of miles on it following a modernization in 1927. The elder Stephens preferred to travel on the rear of slower trains like NP's "Alaskan" in respect for the car's age and wooden construction. Stephens reports that as a child, he enjoyed plinking with a .22 rifle from the rear platform as the train bobbed across the prairie. He also is searching his records for clues about the origin of this fascinating car.

#### About the back cover

Somethings holding up traffic on Hennepin Avenue, Minneapolis, in 1950 where 15 cars are stopped dead on the tracks. View looks south towards Lowry Hill from the Basilica, were the I-94 freeway now lies. Minneapolis Public Library Collection.





# **MTM Membership Application**

The all-volunteer nonprofit Minnesota Transportation Museum was formed in 1962 for the purpose of finding, restoring and operating vintage rail equipment for the education and the enjoyment of the public as a reminder of days gone by. If you like what what you see in this magazine, how about becoming a member and helping us? It is a rich experience filled with fun and tradition. Join us today!

Mail to: Minnesota Transportation Museum, Inc.

P.O. Box 1300, Hopkins, MN 55343



PO Box 16509 Minneapolis, MN 55416-0509 www.TrolleyRide.org

August 2021

Pursuant to board action at the August 5, 2021 meeting of the board of directors and in honor of the 50<sup>th</sup> anniversary of operation of the Como-Harriet Streetcar Line the attached materials are being republished by the Minnesota Streetcar Museum under the under the Creative Commons "Attribution-ShareAlike 4.0 International" and "Attribution-ShareAlike 3.0 Unported" licenses. You may choose either license as suited for your needs. In particular, the 3.0 license is meant to be compatible with the Wikipedia project.

In general, these licenses will allow you to freely:

- Share copy and redistribute the material in any medium or format
- Adapt remix, transform, and build upon the material for any purpose, even commercially.

Under the following terms:

- Attribution You must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.
  - Please credit the Minnesota Streetcar Museum and provide our URL www.trolleyride.org
    We would also appreciate hearing about your re-use of our materials though that is not a requirement of the license.
- **ShareAlike** If you remix, transform, or build upon the material, you must distribute your contributions under the same license as the original.
- **No additional restrictions** You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits.

You do not have to comply with the license for elements of the material in the public domain or where your use is permitted by an applicable exception or limitation.

No warranties are given. The license may not give you all of the permissions necessary for your intended use. For example, other rights such as publicity, privacy, or moral rights may limit how you use the material.

Please review these licenses at the Creative Commons site for full legal code and details on allowed uses:

- Creative Commons Attribution-ShareAlike 4.0 International:
  - o <a href="https://creativecommons.org/licenses/by-sa/4.0/legalcode">https://creativecommons.org/licenses/by-sa/4.0/legalcode</a>
- Creative Commons Attribution-ShareAlike 3.0 Unported
  - o https://creativecommons.org/licenses/by-sa/3.0/legalcode

If these licenses are not appropriate for your needs, for example you want to use the material commercially without crediting us or do not want to share your contributions under the same license please reach out to us for other options.